





## 10/592937

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## Claims:

1. A method of distributing rights-managed media data items to users, wherein each media data item has associated rights information, including a time-limited availability attribute, the method comprising, for each media data item:

in a seeding phase:

storing the media data item;

receiving requests for the media data item from a plurality of users;

determining the availability of the requested media data item based on the associated rights information;

transmitting the requested media data item to the plurality of users;

storing information identifying the media data item, the associated rights information for the media data item and a list of users who have received the media data item;

in a peer-to-peer phase:

receiving requests for the media data item from at least one further user;

compiling a list of sources of the media data item in a peer-to-peer network based on the list of users who have received the media data item;

determining the availability of the requested media data item based on the associated rights-information;

transmitting the list of sources to the at least one further user to enable the user to obtain the requested media data item via the peer-to-peer network;

storing information identifying the requested media data item, the at least one further user and the rights-information of the requested media data item characterized by the list of sources of the media data item is prioritised based on at least one of:

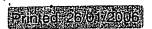
the estimated topographical distance of the source from the user in the network,

preferably estimated based on the respective Internet Protocol addresses of the source and the user, preferably taking account of bandwith restrictions and/or reliability of availability of each source;

the network service provider of the user and the source;

the type and/or speed of connection of the source to the peer-to-peer network.







2. A method according to Claim I wherein the seeding phase comprises seeding the media data items from a central content server to seeding servers connected to the peer-to-peer network at a plurality of points.

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- 3. A method according to Claim 1 or 2 wherein the seeding phase comprises seeding the media data items to users in the peer-to-peer network.
- 4. A method according to any of preceding claim further comprising deleting the media data item from the persistent store in the peer-to-peer phase.
- 5. A method according to any preceding claim wherein the step of storing information comprises storing information in a tracker device associated with the requesting user.
- 6. A method according to any preceding claim wherein the seeding phase comprises supplying the requested media data item to a predetermined number of users.
- 7. A method according to any preceding claim wherein the peer-to-peer phase further comprises the step of supplying the requested data directly to the user if the data is not readily available via the peer-to-peer network.
- 8. A method according to any preceding claim wherein the step of determining the availability of the requested media data item includes determining the availability based on the time-limited availability attribute for the media data item.
- 9. A method according to any preceding claim wherein the time-limited availability attribute is determined based on the time and/or the date of the release or broadcast of the media data item.
- 10. A method according to any preceding claim wherein the time-limited availability attribute comprise an attribute defining the number of times a user can access playback or copy the media data item.







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- 11. A method according to any preceding claim wherein the list of sources of the media data item includes routing information for each source to enable the user to obtain the media data item from each source.
- 12. A method according to any preceding claim wherein the media data item comprises a plurality of chunks of media data.
- 13. A method according to Claim 12 wherein, in the seeding phase, the step of transmitting the media data item comprises transmitting each chunk of the media data item and wherein, in the peer-to-peer phase, compiling a list of sources of the media data item comprises compiling a list of sources of each chunk of the media data item.
- 14. A method according to Claim 12 or 13 wherein, for each chunk of media data, an associated hash value is calculated.
- 15. A method according to any of Claims 12 to 14 further comprising calculating a hash value for each chunk of media data and writing the hash values into a hash file for the media data item.
- 16. A method according to Claim 15 further comprising signing the hash file using a digital signature.
- 17. A method according to Claim 15 or 16 further comprising transmitting the hash file to the user or transmitting data to enable the user.
- 18. A method according to any preceding claim wherein the media data item comprises audio and/or video data.
- 19. A method according to any preceding claim wherein the user comprises a user device comprising at least one of:
- a computer;
- a personal digital assistant (PDA);







a mobile telephone handset;

- a Wi-Fi device;
- a set-top box;
- a 3G device.
- 20. A method according to any preceding claim further comprising determining the type of the user device from which the request for a media data item is received.
- 21. A method according to Claim 20 further comprising selecting a format for the media data item based on the type of the user device determined.
- 22. A method according to any of Claims 1 to 19 further comprising receiving a user input to specify the type of user device and/or the requested download format.
- 23. A method according to any preceding claim wherein the step of determining the availability of the requested media item comprises determining the availability based on at least one of:

an estimate of the geographical location of the requesting user; the Internet Protocol (IP) address of the requesting user;

an identifier of the requesting user; attributes of the requesting user;

the type of the media data.

24. A method according to any preceding claim wherein the information stored identifying the user includes:

the type of user device;

the type and/or speed of the colll1ection from the user to the peer-to-peer network; the format of the media data item transmitted to the user.

25. A method according to any preceding claim further comprising receiving and storing availability information from users in the peer-to-peer network, wherein the availability information indicates the availability of users to peer to other users in the network.









- 26. A method according to any preceding claim further comprising receiving additional data for the media data items stored by users in the network.
- 27. A method according to Claim 28 wherein the additional data includes at least one of: an identifier of each media data item stored; the time and/or date of download of the media data item by the user; hash values for each chunk comprising the media data item; the time and/or date of access by the user to the media data item.
- 28. A method according to any of Claims 23 to 27 wherein the user availability information and/or the additional data for the media data items is stored on a tracker device associated with the user.
- 29. A method according to Claim 28 wherein one tracker device receives and stores data from a plurality of users in a section of the peer-to-peer network.
- 30. A method according to Claim 28 or 29 wherein a plurality of interconnected tracker devices is used to receive and store data from the users in the peer-to-peer network.
- 31. A method according to any of Claims 28 to 30 wherein the or each tracker device maintains a source list for the media data items.
- 32. A method according to any preceding claim further comprising generating reporting data from the information received from the users.
- 33. A method according to Claim 33 wherein the reporting data comprises at least one of:

the number of download requests made by the user; the proportion of time that the user is available for peering to other users; the type of the user device of the user;









the type of the connection from the user to the peer-to-peer network; the number of requests received for the download of each media data item; the number of successful downloads performed for each media data item.

- 34. A method according to any preceding claim further comprising verifying the authenticity of media data items transmitted within the peer-to-peer network.
- 35. A method according to any preceding claim further comprising verifying the authenticity of media data items stored on user devices.
- 36. A method according to any preceding claim further comprising verifying the authenticity of media data items accessed by user devices.
- 37. A method according to any preceding claim wherein the media data item comprises a digitally signed chunk of data embedded in the header of the media data time.
- 38. A method according to Claim 37 wherein the authenticity of the media data item is verified based on the digitally signed chunk of data embedded in the header.
- 39. A method of distributing rights-managed media data items in a peer-to-peer network comprising:

receiving a request for a media data item at a central system from a user in the peer-to-peer network;

deriving a list of sources of the media data item in the peer-to-peer network; characterised by determining the relative priorities of the sources of the media data item in the list based on the network service provider of the requester and the network service provider of the or each source;

supplying the list of sources of the media data item and the routing information to the requesting user.









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- A method according to Claim 39 further comprising deriving routing information for each of the sources of the media data item and determining the relative priorities based on the routing information derived.
- 41. A method according to Claim 39 or 40 wherein the network service provider of the user or the source is determined based on the IP address of the user or the source.
- 42. A method according to any of Claims 39 or 41 wherein the relative priorities of the sources of the media data item in the list are further determined based on the relative geographic distribution of the requesting user and the sources of the media data.

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